SUTOVSKIY, S.M.

Method for obtaining the electrographic image and its application. Zhur. nauch. i prikl. fot. i kin. 8 no.3:199-201 My-Je '63. (MIRA 16:6)

1. Nauchno-issledovatel'skiy i proyektnyy institut "Neftekhimavtomat" g. Sumgait, Azerbaydzhanskoy SSR.
(Xerography)

SUTOVSKIY , S.M.

Use of photoelectric phenomena in the process of electrolysis of a melt. Zav.lab. 29 no.12:1472-1474 '63. (MIRA 17:1)

1. Nauchno-issledovatel'skiy i proyektnyy institut po kompleksnoy avtomatizatsii v neftyanoy i khimicheskoy promyshlennosti.

KONSTANTINOV, V.I.; SUTOVSKIY, S.M.; Prinimali uchastiye: MARTIROSOV, Zh.G.; RUVINOV, E.S.; GULIYEV, A.M.; KITUSHINA, I.A.; NIFONTOV, P.R.; CHUDAKOV, V.A.

Automatic measurement of chlorine concentration in anodic gas. TSvet. met. 36 no.5:45-51 My '63. (MIRA 16:10)

1. Nauchno-issledovatel'skiy i proyektnyy institut "Neftekhimavtomat" (for Martirosov, Ruvinov, Guliyev, Kitushina).

SUTOVSKIY, S.M.

Informational approach to the selection of a method for controlling the qualitative parameters of technological processes. Izv. vys. ucheb. zav.; neft' i gaz 7 no.2:91-96 '64. (MIRA 17:10)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.

SUTOVSKIY, S.M.

Some problems concerning the coordination of photometric analyzers with measurement conditions. Izv. vys. ucheb. zav.; neft' i gaz 8 no.3:101-104 '65. (MIRA 18:5)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova.

SUTOVSKIY, S.M.

Plotting an empirical scale for a furfurole analyzer. Izv. vys. uchsb. zav.; neft' i gaz. 8 no.5:98-100 '65. (MIRA 18:7)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova.

L 17535-66 EWT(d)/EWT(l)/ETC(f)/EPF(n)-2/EWG(m) IJP(c) WW/AT

ACC NR: AP6006794 SOURCE CODE: UR/0386/66/003/001/0012/0014

AUTHOR: Kulagin, S. G.; Likhachev, V. M.; Markuzon, Ye. V.; Rabinovich, M. S.; Sutovskiy, V. M.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: States with inverse population in a pinched discharge

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 1, 1966, 12-14

TOPIC TAGS: discharge plasma, plasma pinch, stimulated emission, laser R and D, gas laser, argon

ABSTRACT: The authors show that states with a negative temperature exist in a pinched discharge plasma. This phenomenon is demonstrated by a pulse of stimulated emission which coincides with the moment of pile-up. An installation for generating currents up to 15 Ka with a discharge period of 2-5 μsec was used in the experiments. The quartz discharge tube was 100 cm long and 2.5 cm in diameter. Annular

Card 1/2

L 17535-66
ACC NR: AP6006794

3

copper electrodes were used with an internal diameter of 2.5 cm. The optical resonator was made up of two spherical dielectric mirrors. The coefficients of reflection for the mirrors in the emission zone were 90 and 45%. Condensers with a capacitance of 0.1, 0.4, and 2.5 μf and a voltage of 20-30 kv were used as the power source. The working gas was spectrally pure argon at a pressure of 10^{-2} mm Hg. A curve is given showing the intensity of stimulated emission as a function of pressure. Emission is observed on the 4765 Å line of singly ionized argon at pressures from $9 \cdot 10^{-3}$-$3 \cdot 10^{-2}$ mm Hg. This is also the best pressure range for generation of a pinch discharge. Experiments were done at a pressure of $1.25 \cdot 10^{-2}$ mm Hg which corresponds to the maximum intensity. The photoelectric method was used for recording the emission pulse. Emission lags 0.2 μsec behind the current and lasts for 0.2 μsec. Emission power at the maximum is 20-25 kw. Calculations show that the emission pulse corresponds approximately with the time of discharge compression. "The authors thank corresponding member AN SSSR A. M. Prokhorov for interest in the work and useful consultation and also laboratory workers M. R. Bedilov and Yu. K. Dmitriyev for assistance in carrying out the experiment." Orig. art. has: 3 figures. [14]

SUB CODE: 20/ SUBM DATE: 11Nov65/ ATD PRESS: 4211

Card 2/2

L 07825-67 EWT(l)/EWT(m)/EEC(k)-2/EWP(c)/EWP(t)/ETI/EWP(k) IJP(c) DS/WG/JD

ACC NR: AP6034216 SOURCE CODE: UR/0368/66/005/004/0534/0535

AUTHOR: Kulagin, S. G.; Likhachev, V. M.; Rabinovich, M. S.; Sutovskiy, V. M.

ORG: none

TITLE: Pulsed argon laser at high-density currents and low pressures

SOURCE: Zhurnal prikladnoy spektroskopii, v. 5, no. 4, 1966, 534-535

TOPIC TAGS: gas laser, argon laser, high intensity laser, pulsed laser

ABSTRACT: Oscillation of a pulsed Ar^+ laser at heavy currents (up to ~15—20 kamp/cm^2) and low pressures (10^{-1}—6 x 10^{-3} mm Hg) was investigated experimentally. The heavy current pulsed discharge was achieved in quartz tubes 1000 mm long and 10 mm in (internal) diameter. The tubular electrodes, made of tantalum, were 50 mm long and 10 mm in diameter. The output of the gas-discharge chamber was directed through quartz plane-parallel plates situated 150 mm from the electrodes at Brewster angles. The cavity consisted of two spherical mirrors with a 300-mm radius of curvature, placed 1500 mm from each other. One mirror was silver coated and the other dielectric coated (reflectivities were 90 and 30%, respectively). The energy was supplied from condensers with capacities of 0.01, 0.1, 0.4, and 2.6 μF at 10—25 kv. The equipment was capable of generating 1—15 kamp pulses for 1—5-μsec discharge periods. The output radiation was recorded photoelectrically. The experiments were carried out in spectrally pure argon in the pressure range from 10^{-1} to 6 x 10^{-3} mm Hg. The

Card 1/2 UDC: 621.375.9

ACC NR: AP7004942 SOURCE CODE: UR/0386/67/005/002/0055/0057

AUTHOR: Likhachev, V. M.; Rabinovich, M. S.; Sutovskiy, V. M.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences, SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Feasibility of investigating a pinch discharge by using its intrinsic stimulated emission

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 5, no. 2, 1967, 55-57

TOPIC TAGS: stimulated emission, plasma diagnostics, discharge plasma, plasma pinch, laser effect, high temperature plasma, plasma discharge

ABSTRACT: This is a continuation of earlier work (Pis'ma ZhETF v. 3, 12, 1966), where the existence of negative-temperature states in a high-temperature plasma of a strong-current pinch discharge was demonstrated. In this article the authors report the use of this phenomenon to investigate the cumulation of a pinch discharge. This was done by measuring (with a Rogowski loop) the time correlation between the stimulated-emission pulse and the current pulse at the instant of discharge cumulation. The discharge current reached 20 kiloamp at 2 μsec duration, and the current density at the instant of cumulation reached 50 - 75 ka/cm^2. The stimulated-emission pulse was observed by mounting confocal dielectric-coated mirrors at the ends of the discharge tube. The working gas was pure argon. The measurements show that the

Card 1/2 UDC: none

ACC NR: AP7004942

maximum of the generation pulse coincides with the instant of current cumulation. Furthermore, generation occurs not only during the instant of maximum pinch contraction, but also as the plasma front moves during the stage immediately preceding the discharge cumulation. However, the emission maximum coincides with the current maximum. Generation takes place only at sufficiently large currents (large discharge capacitor, 0.4 μF, charged to high voltages up to 45 kv). The characteristics of the stimulated emission depend strongly on the discharge conditions, so that an investigation of the laser action can serve as an additional means of plasma diagnostics. It is further hoped that at sufficiently high generation power the emission can also be used to determine the plasma parameters directly at the instant of generation by incoherent ion or electron scattering, by linear plasma interaction, and by similar effects. Orig. art. has: 2 figures. [02]

SUB CODE: 20/ SUBM DATE: 25Oct66/ ORIG REF: 001/ ATD PRESS: 5114

Card 2/2

ACC NR: AR6035415 SOURCE CODE: UR/0137/66/000/009/G018/G018

AUTHOR: Saar, M. M.; Papp, M. Kh.; Sutt, A. A.

TITLE: Thin-wall channels of a linear induction pump for liquid aluminum

SOURCE: Ref. zh. Metallurgiya, Abs. 9G126

REF. SOURCE: Sb. nauchno-tekhn. statey. N.-i elektrotekhn. in-t (Tallin), vyp. 1, 1965, 180-182

TOPIC TAGS: liquid metal pump, oxide, boride, nitride, carbide, endurance test, ceramic coating

ABSTRACT: The authors have ascertained experimentally that certain nonmetallic and ceramic substances exhibit satisfactory endurance against liquid aluminum. Among these are graphite, oxides, (Al_2O_3, TiO_2, ZrO_2, Cr_2O_3, MgO), borides (CrB, AlB), nitrides (AlN, CrN), and carbides (SiC, B_4C). A thin-wall channel of a linearized induction pump made of sheet metal coated on the inside by a thin layer of ceramic, developed at the NISETI Institute, has prospects of finding commercial use for pumping liquid aluminum. Compared with thick-wall channels (10.0 mm and more), higher pump energy coefficients are obtained as a result of the appreciable decrease in the air gap between the stator lamination stacks. (From RZh Elektrotekhn.) [Translation of abstract]

SUB CODE: 13, 11

UDC: 699.71.04

Card 1/1

(N) L 12040-66 EWT(d)/EWP(e)/EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)
ACC NR: AT5028831 SOURCE CODE: UR/2807/64/000/214/0123/0130
EWA(h)/ETC(m) IJP(c) JD/WW/WB/EM/DJ/WH
AUTHOR: Saar, M. M.; Teearu, V. A.; Papp, M. Kh.; Sutt, A. A.
ORG: Polytechnic Institute, Tallinn (Politekhnicheskiy institut)

TITLE: Test of the thin walled channel of an induction pump for pumping liquid aluminum

SOURCE: Tallinn. Politekhnicheskiy institut. Trudy. Seriya A, no. 214, 1964. Issledovaniye i proyektirovaniye elektromagnitnykh sredstv peremeshcheniya zhidkikh metallov; sbornik trudov, no. 2, 123-130

TOPIC TAGS: liquid metal pump, aluminum, ceramic coating, electromagnetic pump

ABSTRACT: The thin walled (1-3 mm) channel, stamped out of heat resistant sheet steel, was coated with a layer of ceramic material 100 μ thick (consisting of refractory oxides and carbides) to protect it from attack by the liquid aluminum. The temperature of the channel during the experiment was 750-850°C, the pressure developed by the pump was 0.017 kg/cm^2. The aluminum moved through the channel at 1.5 cm/sec. After the test, no signs of corrosion were observed inside the channel. A close study of the ceramic material and base metal of the channel

Card 1/2 UDC: 621.318.38

L 12040-66
ACC NR: AT5028831

showed that the ceramic coating is completely suitable for use in induction pumps. It is concluded that ceramic coated thin walled channels substantially improve the performance of induction pumps. Orig. art. has: 5 figures, 1 table.

SUB CODE: ~~EC~~ 13/ SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 000

Card 2/2

SUTT, S. ; HIOB, E.

Cultivated pastures of the Kaardivaelane Collective Farm in Tapa District. p. 261.

SOTSIALISTLIK POLLUMAJANDUS. (Pollumajanduse Ministeerium) Tallinn, Estonia. Vol. 13, no. 6, June 1958.

Monthly list of East European Accessions (EEAI) Vol. 9, no. 1, Jan. 1960.

Uncl.

SUTTA, J.

CZECHOSLOVAKIA / Diseases of Farm Animals. General Problems. R-1

Abs Jour : Ref Zhur - Biol., No 17, 1958, No 78890

Author : Sutta, I.
Inst : Not given
Title : Barbiturates as Narcotics in Large Domestic Animals.

Orig Pub : Veterin. casop., 1957, 6, No. 6, 503-511.

Abstract : No abstract given.

Card 1/1

3

SUTTI, J.

Accuracy of direction transfers by means of diagrams. p. 78. (Rudy, Vol. 5, No. 3, Mar 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

SUTTI, Juraj, ing., okleveles banyamernok

Determination of the angle of the direction of front entries.
Bany lap 93 no.3:153-157 Mr '60.

1. Muszaki Egyetem, Kosice, Csehszlovakia.

SUTTI, Juraj, ing.

Precision of point situation in a free polygonal order. Geod kart sbor 8: 49-57 '62

1. Katedra banskeho meracstva a geofyziky, Vysoka skola technicka, Kosice.

SUTTI, Juraj, inz.

Evaluation of the precision achieved by a small number of measurements. Rudy 10 no.2:47-51 F '62.

1. Katedra banskeho meracstva a geofyziky, Vysoka skola technicka, Kosice.

SUTTI, J., inz.; DRABANT, Jan, inz.

Position accuracy of points determined by linear distances. Geod kart sbor 9:91-97 '63.

1. Katedra banskeho meracstva i geofyziky, Vysoka skola technicka, Kosice.

SUTTI, Juraj

Criterion of point position stability. Geod kart obzor 9 no.7:179-181 Jl '63.

1. Katedra banskeho meracstva a geofyziky, Vysoka skola technicka, Kosice.

E-E

CZECHOSLOVAKIA

SÜTTI, J., Engineering Professor (Dozent Ing.).

Resides Košice.

Berlin, Vermessungstechnik, Vol XI, No 7, JUL 1963, pp 262-264.

"Alternate Error in Length Measurements."

(1)

SUTTI, J.

Position accuracy of points in connection measurement. Sbor VST Kosice 1:149-164 '64.

1. Chair of Mine Surveying and Geophysics of the Higher School of Technology, Kosice. Submitted March 24, 1963.

ACCESSION NR: AP5015658 CZ/0030/64/000/012/0377/0377

AUTHOR: Sutti, Jurij(Engineer)

TITLE: Precision of reading of a vernier

SOURCE: Jemna mechnika a optika, no. 12, 1964, 377

TOPIC TAGS: laboratory equipment

Abstract: /Author's Russian summary, modified/ The article shows that the precision of a vernier cannot be an indicator of the quality of a measuring instrument, as from the point of view of probability the reading error is reduced with repeated measurements of the same value. Orig. art. has 4 figures and 2 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000 JPRS

Card 1/1

SUTTI, Juraj, doc. inz.

Accurate designing of polygonal traverses. Uhli 6 no.9:292-294 S '64

1. Chair of Mine Survey and Geophysics, Higher School of Technology, Kosice.

SUTTI, Juraj, ing.

Calculation of rock volume by means of horizontal sections of a stereophotograph. Rudy 12 no.12:439-441 D '64.

1. Chair of Mine Surveying and Geophysics of the Higher School of Technology, Kosice.

SUTTI, Juraj, doc.

A priori accuracy of reading on alignment charts with three parallel scale carriers. Aplikace mat 9 no.3:194-205 '64.

1. Chair of Mine Surveying and Geophysics, Higher School of Technology, Kosice, Svermova 3. Submitted January 4, 1963.

SUTTI, Jurij, ing.

Vernier precise reading. Jemna mech opt 9 no.12:377 D '64.

L 34657-66 EWT(1) GW

ACC NR: AP6025843 SOURCE CODE: CZ/0024/65/000/008/0197/0199

AUTHOR: Sutti, Juraj--Shitti, Y. (Docent; Engineer)

45
B

ORG: Institute of Technology, Kosice (Vysoka skola technicka)

TITLE: Volume determination by means of plotting of points from stereopairs

SOURCE: Geodeticky i kartograficky obzor, no. 8, 1965, 197-199

TOPIC TAGS: geographic survey, cartography, computer, automatic stereoplotter, calculator

ABSTRACT: The article presents an analytical method of determining volumes with stereopairs (on the ground), requiring graphic equipment, a stereocomparator and a semi- or fully automatic calculating device or computer. In accuracy, its results are comparable with those obtained in classical determinations. This article was presented by Engineer Jiri Suma, GTU, Prague. Orig. art. has: 2 figures, 16 formulas and 1 table. [JPRS: 32,859]

SUB CODE: 08, 09 / SUBM DATE: none / ORIG REF: 004 / SOV REF: 002

Card 1/1

UDC: 528.721.22.063.4

SUTU, Angelu; COCINSCHI, R.

A comparative study of the treatment of chorea minor. Rumanian M. Rev. 2 no.1:37-41 Jan-Mar 58.
(CHOREA, in inf. & child
minor, drug ther., classif. & indic.)

(1)

RUMANIA

ŞUŢU, A., Dr; LUPU, I., Dr; MIŞCOI, M., Dr.

The Neuropsychiatry Hospital of Sibiu, Infantile Neuropsychiatry Section (Spitalul de neuropsihiatrie Sibiu, Sectia neuropsihiatrie infantila) - (For all).

Bucharest, Viata Medicala, No 13, 1 Jul 63, pp 885-892

"Three Years' Experimentation With Phenylbutazone In the Treatment of Acute Chorea."

(3)

SUTU, Maria, lector (Brasov)

Helping pupils form the dialectical materialism concept. Pt. 2.
Natura Geografie 15 no.5:55-59 S-O '63.

SUTU, Maria, lector

Aspects of the teaching qualifications of geography teachers.
Natura Geografie 16 no.5:47-50 S-O'64

1. Institute of Perfecting the Teaching Staff, Brasov.

FUKS, N.A.; SUTUGIN, A.G.

Monodispersed aerosols. Usp.khim. 34 no.2:276-299 F '65. (MIRA 18:5)

1. Fiziko-khimicheskiy institut imeni Karpova, Moskva.

SUTUGIN, A.G.

Preparation of reproducible monodisperse aerosols with mean particle radii from 30 to 300 A. Koll. zhur. 27 no.5:785-787 S-O '65. (MIRA 18:10)

1. Fiziko-khimicheskiy institut imeni Karpova, Moskva.

FUKS, N.A.; SUTUGIN, A.G.

Droplet size distribution in dibutyl phthalate mists obtained by the method of condensed nuclei. Koll. zhur. 25 no.4:487-493 Jl-Ag '63. (MIRA 17:2)

1. Fiziko-khimicheskiy institut imeni Karpova, Moskva.

FUKS, N.A.; SUTUGIN, A.G.

Highly disperse aerosols. Koll.zhur. 26 no.1:110-116 Ja-F '64.
(MIRA 17:4)

1. Fiziko-khimicheskiy institut imeni Karpova, Moskva.

L 5036-66 EWT(m)/EPF(c)/EPA(w)-2/T/ETC(m) DS/WW/JAJ

ACCESSION NR: AP5024024 UR/0069/65/027/005/0785/0787
541.18.05

AUTHOR: Sutugin, A. G.

TITLE: Preparation of reproducible monodisperse aerosols with average particle radii from 30 to 300 A

SOURCE: Kolloidnyy zhurnal, v. 27, no. 5, 1965, 785-787

TOPIC TAGS: aerosol, chemical dispersion, nucleation, condensation nucleus

ABSTRACT: The preparation of monodisperse uncharged aerosols of dioctyl sebacate by means of the nucleation method and a KUST instrument is described. A monodisperse sodium chloride aerosol provided the condensation nuclei. The average diameter and size distribution of the particles in the dioctyl sebacate aerosol were determined by the diffusion method. In most cases, the calculated concentration of this aerosol corresponded to a concentration of nuclei of 2×10^7 cm^{-3}. Theoretical and experimental curves of the diffusional settling of the aerosol were plotted. After the aerosol with an average particle radius of 100 A was passed through an 8-liter vessel at a rate of 11.0 l/min., the diffusion coefficient did not change, i.e., the evaporation rate of the particles was fairly

Card 1/2

09010170

L 5036-66

ACCESSION NR: AP5024024

6

low. The reproducibility of the aerosol concentration was determined by the reproducibility of the concentration of nuclei and amounted to 3%. The particle size did not change after 24 hours. "The author expresses his thanks to Prof. N. A. Fuks for assistance rendered in this work." Orig. art. has: 2 figures.

44, 55

ASSOCIATION: Fiziko-khimicheskiy institut im. Karpova, Moscow (Physicochemical Institute)

44,5

SUBMITTED: 27Feb65 ENCL: 00 SUB CODE: ME, GC

NO REF SOV: 003 OTHER: 001

GC

Card 2/2

SUTUGIN, G. S.

AID P - 5504

Subject : USSR/Aeronautics - maintenance

Card 1/1 Pub. 135 - 21/26

Authors : Sutugin, G. S., Eng.-Col., cand. of tech. sci., and Korniyenko, A. G., Eng.-Lt. Col.

Title : To standardize aircraft connectors and assembly junctions.

Periodical : Vest. vozd. flota, 3, 76-77, Mr 1957

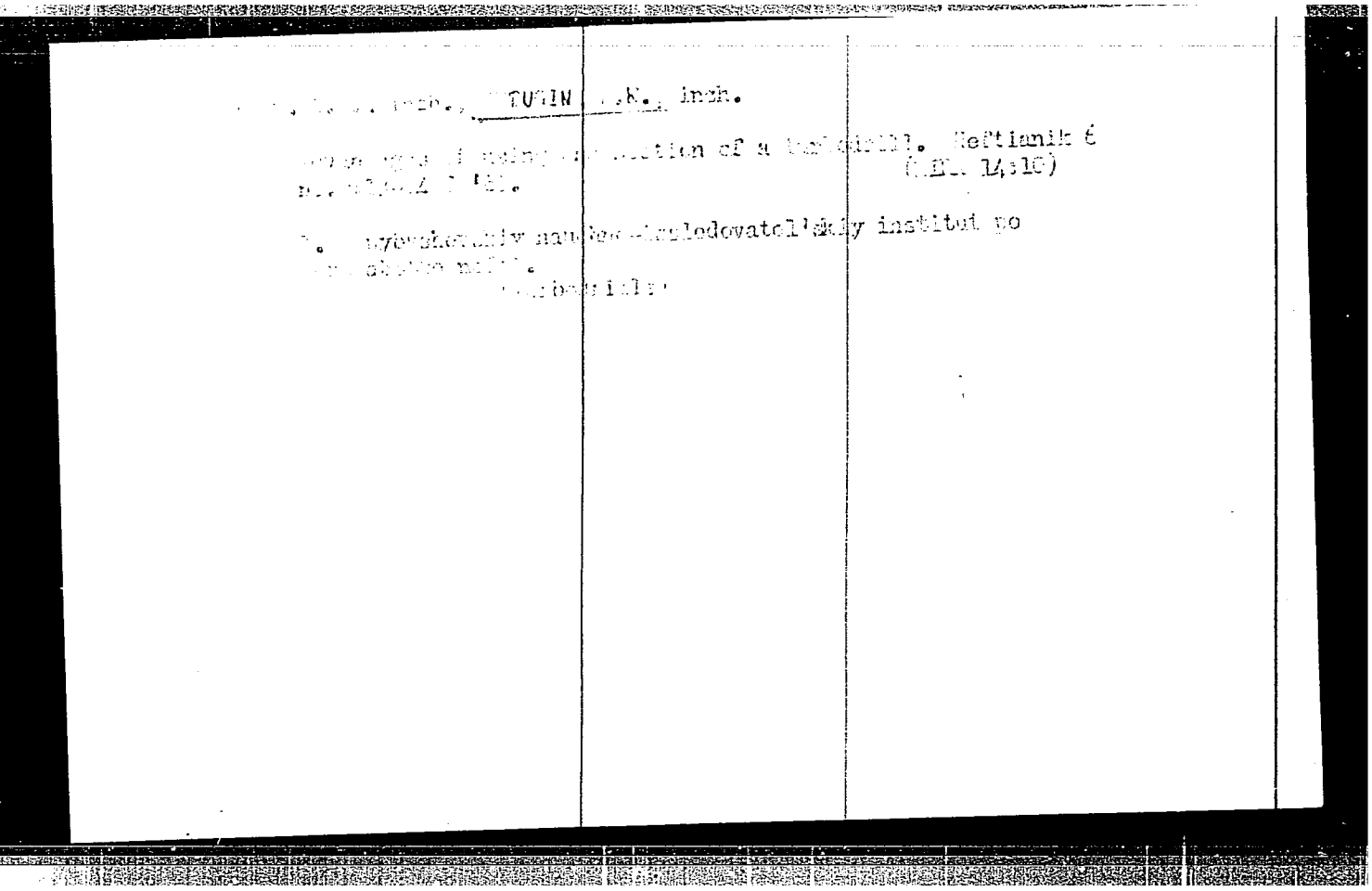
Abstract : The authors suggest that in the interest of a more rational servicing of various types of aircraft on the airdromes, the standardization of various aircraft connectors of hydraulic and electric systems, of nipple joints for filling the pressurized cabins with air, etc., should be carried out.

Institution : None

Submitted : No date

BELYANIN, Petr Nikolayevich, inzh.; CHERNENKO, Zhan Sergeyevich, kand. tekhn. nauk; SUTUGIN, G.S., kand. tekhn. nauk, retsenzent; BALASHOV, V.S., inzh., red.; GRIGORASH, K.I., red.

[Aircraft filters and cleaners for hydraulic systems] Aviatsionnye fil'try i ochistiteli gidravlicheskikh sistem. Moskva, Mashinostroenie, 1964. 293 p. (MIRA 17:4)



USPENSKIY, G.N.; VOINOV, L.G.; SUTUGIN, P.K.

Operation of No. 9 bit in the drilling of deep wells at high working pressure. Trudy KNII NP no.17:3-11 '62. (MIRA 17:8)

S/020/60/133/01/21/070
B014/B011

AUTHOR: Sutula, V. D.

TITLE: Relative Causality in the Non-local Field Theory 21

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 1, pp. 77-80

TEXT: As is well known, the generalization of the common field theory is the non-local field theory. Attempts made to subject this theory to the requirements of relativistic invariance, macrocausality, and unitariness, are confronted with considerable difficulties in the perturbation theory. Here, the author investigates the macrocausality of a model of the field theory that had already been studied in Ref. 1. This model is not unitary. It is, however, likely for unitariness to be achieved by the addition of some terms to the Lagrangian. These terms contain closed cycles (retarded functions) which vanish in the local range. It is shown that this modification of the Lagrangian does not impair results. The author first investigates the requirement of causality that the terms containing the frequencies of both signs drop with sufficient rapidity on the propagation of a wave packet. Next, the investigation is extended to the scattering of a neutral

Card 1/2

SUTULA, V.D.

Dispersion relations in nonlocal field theory. Dokl. AN SSSR 140 no.1:100-102 S-O '61. (MIRA 14:9)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom N.N.Bogolyubovym. (Field theory)

SUTULA, V.D.; ZEYF, A.P.

Study of the adsorption of gases in the presence of surface states. Kin.i kat. 3 no.5:698-703 S-O '62. (MIRA 16:1)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR.
(Adsorption) (Chemistry, Physical and theoretical)

SUTULA, V.D.

Theory of chemisorption. Kin.i kat. 3 no.5:704-708 S-O '62. (MIRA 16:1)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR.
(Adsorption)

SUTULIN, A.

For communist labor and for high quality. Vnesh. torg. 41 no.11: 42-43 '61. (MIRA 14:11)

(Kiev--Excavating machinery)

SUTULIN, A.

Development and prosperity of the new Bulgaria. Vnesh. torg. 42 no.2:41-44 '62. (MIRA 15:2)
(Bulgaria--Economic conditions)

"Conditions Initiating Relaxation Oscillations of a Whole Anode Magnetron"

Uch. Zap. Kharkovskogo univ., 4, 1955, pp 215-219

These oscillations are characterized by surges of the plate voltage and of the HF oscillations, and occur at audio frequencies. The optimum conditions are found at a certain value of the magnetic field with corresponding tilt of the cathode axis with respect to the superimposed field. Most stable and intense oscillations occur in the vicinity of the critical parabola. The previously obtained information that intermittent oscillations of the split-anode magnetron depend on vacuum were not confirmed by experimental tests with the whole anode magnetron. (RZhFiz, No 2, 1955)

SO: Sum. 402, 12 May 56

GORLIN, V. I.

Dissertation: "Conditions of Generation of Intermittent Generation in Magnetrons." Cand Phys-Math Sci, Khar'kov State U, Khar'kov, 1954. Referativnyy Zhurnal--Fizika, Moscow, Jul 54.

SO: SUM No. 356, 25 Jan 1955

SOV/58-59-8-18527

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 213 (USSR)

AUTHOR: Sutulin, V.F.

TITLE: Intermittent Generation in Split-Anode Magnetrons

PERIODICAL: Uch. zap. Khar'kovsk. un-t, 1958, 98, Tr. Fiz. otd. fiz.-matem. fak., Vol 7, pp 335-347

ABSTRACT: The article investigates the conditions under which intermittent generation arises in split-anode magnetrons operating under conditions of static negative resistance. Contrary to the wide-spread belief that intermittent generation in a split-anode magnetron is due to the gaseous state of the tube, the author comes to the conclusion that the conditions for the rise of intermittent generation in split-anode magnetrons do not depend on a vacuum or the presence of tungsten vapors in the tube, but rather are determined by a dynamic volt-ampere characteristic, the course of which depends on the performance of the magnetron's generator and the quality factor of its oscillator circuit. Dynamic volt-ampere characteristics are described for the cases of a good-quality and a poor-quality factor of the circuit. In the latter case a hysteresis loop

Card 1/ 3

Intermittent Generation in Split-Anode Magnetrons

is present in the dynamic volt-ampere characteristic, permitting one to obtain, in the case of certain values of the resistance r which is switched into the anode circuit, intermittent generation by the magnetron's generator. This intermittent generation is accompanied by relaxation oscillations in the circuit of the blocking capacitor and resistance r. A differential equation of the relaxation oscillations is worked out, and a criterion is formulated for obtaining intermittent generation. It is shown that for every value of the voltage of the source which is charging the anode, it is possible to change the magnetron over to conditions of intermittent generation, increasing the resistance r in a corresponding manner. A theoretical determination is made of the period of the relaxation oscillations. The study of the intermittent generation of split-anode magnetrons was carried out on two-segment and four-segment magnetrons with anode diameters of 5.10 mm and having diverse ratios of cathode diameter to anode diameter ($\delta = d_c/d_a = 0.015, 0.06, 0.25, 0.30, 0.40$ and 0.60). The dynamic volt-ampere characteristics of these magnetrons were studied. The theoretically determined period of intermittent generation proved to be somewhat smaller than the experimentally measured period. Stable relaxation oscillations were obtained which had a frequency of up to 10 Mc. When these oscillations had a frequency of 1 Mc, their amplitude amounted to 20 to 25% of the anode voltage U_a, and at a frequency of 10 Mc to no less than 5%

Card 2/3

Intermittent Generation in Split-Anode Magnetrons

of U_a. It was found that magnetrons with $\delta > 0.6$ do not give rise to intermittent generation in a wide range of variation of the magnetic field H (up to $H = 2H_{cr}$). This is explained by the fact that a magnetron with a thick cathode provides a smooth excitation of oscillations in a wide range of variation of H/H_{cr}. It is also shown that a decrease in filament current increases the frequency of the intermittent generation. The bibliography contains 10 titles. (Khar'kovsk. un-t, SSSR)

G.M. Gershteyn

SOV/58-59-8-18528

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 214 (USSR)

AUTHOR: Sutulin, V.F.

TITLE: The Phenomenon of Intermittent Generation in a Multicavity Magnetron With a 3 cm Band at Low Anode Voltages

PERIODICAL: Uch. Zap. Khar'kovsk. un-t, 1958, 98, Tr. Fiz. otd. fiz.-matem. fak., Vol 7, pp 349-354

ABSTRACT: In the course of the author's preceding study (abstract 18527), an experimental investigation was made of intermittent generation in multiresonator magnetrons. The models studied included laboratory magnetrons with a 3 cm band, containing 4, 8, 12 and 14 resonators and having a tungsten cathode and anodes with a diameter of 3.0 and 4.8 mm, as well as a factory magnetron of the "725-A" type. The laboratory magnetrons were prepared in glass flasks and evacuated down to a vacuum of $\sim 10^{-6}$ mm Hg. The following characteristics attending the induction of intermittent generation in multiresonator magnetrons were established as a result of the experiment. Intermittent generation is obtained at low anode voltages U_a (800-1,300 v).

Card 1/2

SOV/58-59-8-18528

The Phenomenon of Intermittent Generation in a Multicavity Magnetron With a 3 cm Band at Low Anode Voltages

At a given value of U_a the regions of the excitation of intermittent generation are very narrow in relation to the variation of the magnetic field H, and the intermittent oscillations themselves arise at $H \cong 1.6\ H_{cr}$. In magnetrons without straps the volt-ampere characteristics have binary hysteresis loops, causing the presence of two forms of relaxation oscillations, which are explained by the skip in the forms of the high-frequency oscillations. Introducing bilateral straps eliminates the binarity of the hysteresis loop and permits one to get rid of the binarity of the relaxation oscillations. Experiments conducted on a magnetron with a removable cathode showed that intermittent generation arises only in multiresonator magnetrons with a sufficiently thin cathode ($\sigma = d_c/d_a < 0.2$). The amplitude of the relaxation oscillations increases with a decrease in the number of slots. It proved possible to obtain relaxation oscillations with a frequency of up to 1.5 Mc. (Khar'kovsk. un-t SSSR).

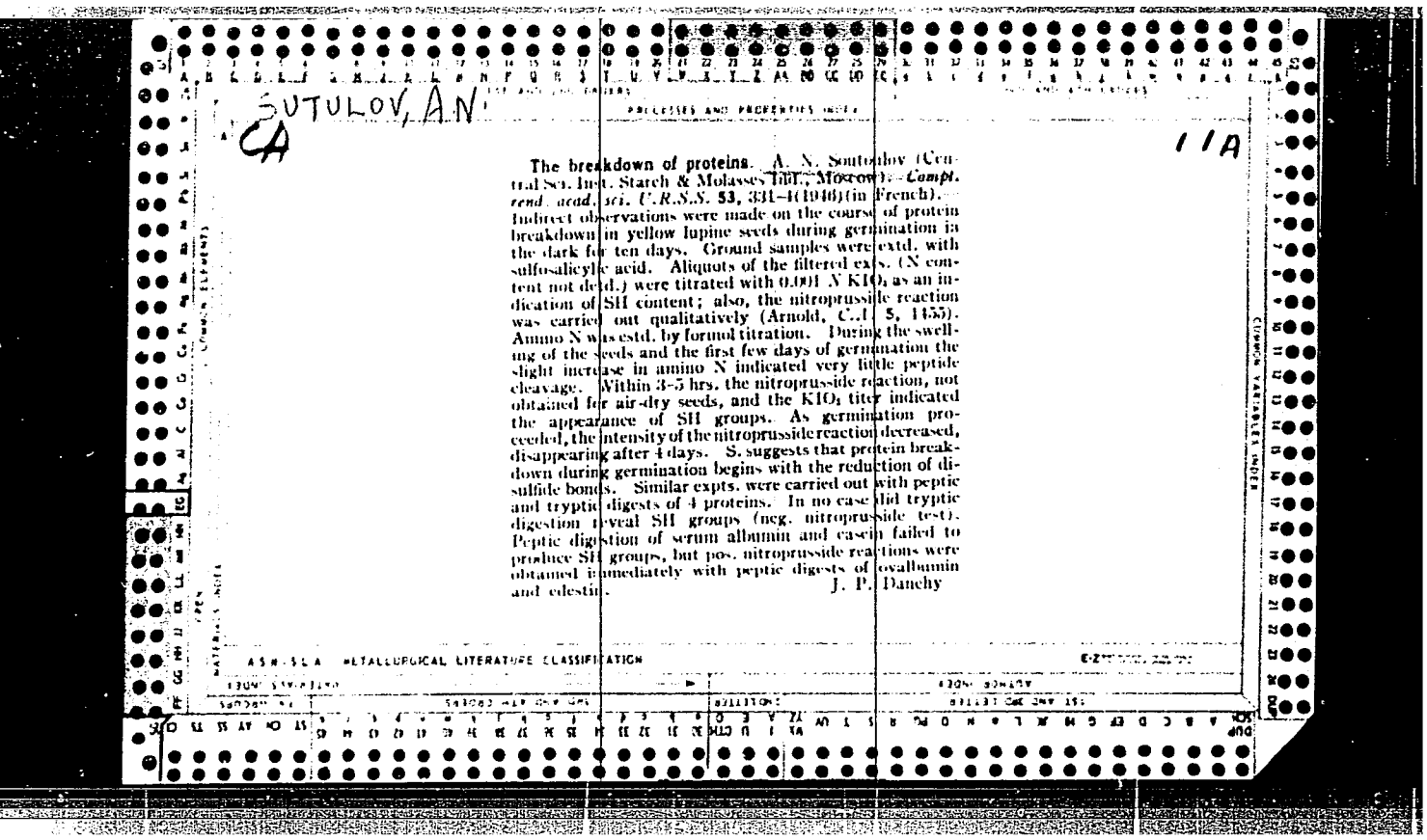
G.M. Gershteyn

Card 2/2

SUTULOV, A., mayor, voyennyy shturman pervogo klassa

Ground controlled approach. Av. i kosm. 45 no.5:86-87 My '63.
(MIRA 16:5)

(Ground controlled approach)



SUTULOV, A.N.

CA

11A

The breakdown of proteins. A. N. Sutulov (Central Sci. Inst. Starch & Molasses Ind., Moscow). *Compt. rend. acad. sci. U.R.S.S.* **53**, 331–4 (1946) (in French). Indirect observations were made on the course of protein breakdown in yellow lupine seeds during germination in the dark for ten days. Ground samples were extd. with sulfosalicylic acid. Aliquots of the filtered exts. (N content not detd.) were titrated with 0.001 *N* KIO_3 as an indication of SH content; also, the nitroprussile reaction was carried out qualitatively (Arnold, *C.A.* **5**, 1455). Ammo N was estd. by formol titration. During the swelling of the seeds and the first few days of germination the slight increase in amino N indicated very little peptide cleavage. Within 3–5 hrs. the nitroprusside reaction, not obtained for air-dry seeds, and the KIO_3 titer indicated the appearance of SH groups. As germination proceeded, the intensity of the nitroprusside reaction decreased, disappearing after 4 days. S. suggests that protein breakdown during germination begins with the reduction of disulfide bonds. Similar expts. were carried out with peptic and tryptic digests of 4 proteins. In no case did tryptic digestion reveal SH groups (neg. nitroprusside test). Peptic digestion of serum albumin and casein failed to produce SH groups, but pos. nitroprusside reactions were obtained immediately with peptic digests of ovalbumin and edestin.

J. P. Danehy

SUTULOV, Prof A. N.

USSR/Chemistry - Potatoes, Oil of Feb 1948
Chemistry - Vitamin, B_6

"A New Property of Potato Oil," Prof A. N. Sutulov, 1 p

"Priroda" Vol XXXVII, No 2

W. Kroner and W. Volksen have succeeded in isolating linoleic and linolenic acids from potato oil. (Naturwiss, 1942). These acids are indispensable for maximum biological activity of pyridoxine (vitamin B_6). Since they cannot be synthesized in human organism potato has a food value not previously recognized.

69T2

SUTULOV, A.N., prof.

Storage of raw materials and semiprocessed products. Trudy TSNIIKPP no.3:55-66 '59. (MIRA 13:9)
(Potatoes--Storage) (Corn (Maize)--Storage)
(Starch--Storage)

SUKHORUKOV, K.T.; SUTULOV, A.N.

Oxygen absorption by killed plants. Zhur. ob. biol. 23 no.2:109-113 Mr-Ap '62. (MIRA 15:5)

1. The Main Botanical Gardens, Academy of Sciences of the U.S.S.R., Moscow.

(PLANTS—RESPIRATION)

SUTULOV, A.N.

Role of oxidation in the senescence and death of seeds. Biul. Glav. bot. sada no.57:53-60 '65. (MIRA 18:9)

1. Glavnyy botanicheskiy sad AN SSSR.

SUTULOV, L.S. and SUTULOV, G.L.

"Reactivity and Plasticity of Nervous Tissue in Experimental Conditions."

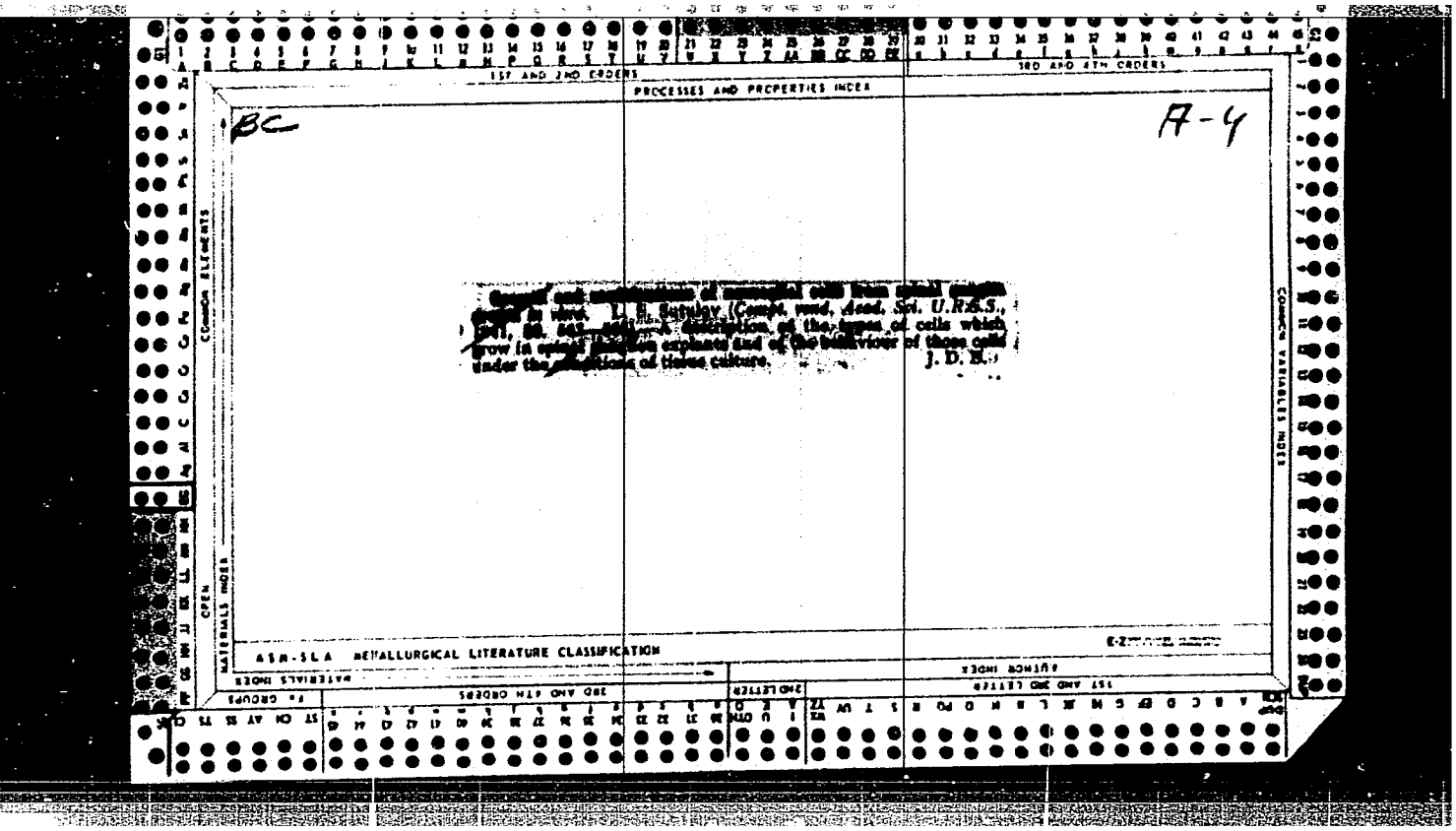
paper presented at the 7th Intl Congress of Anatomists, New York City, 11-16 Apr 1960

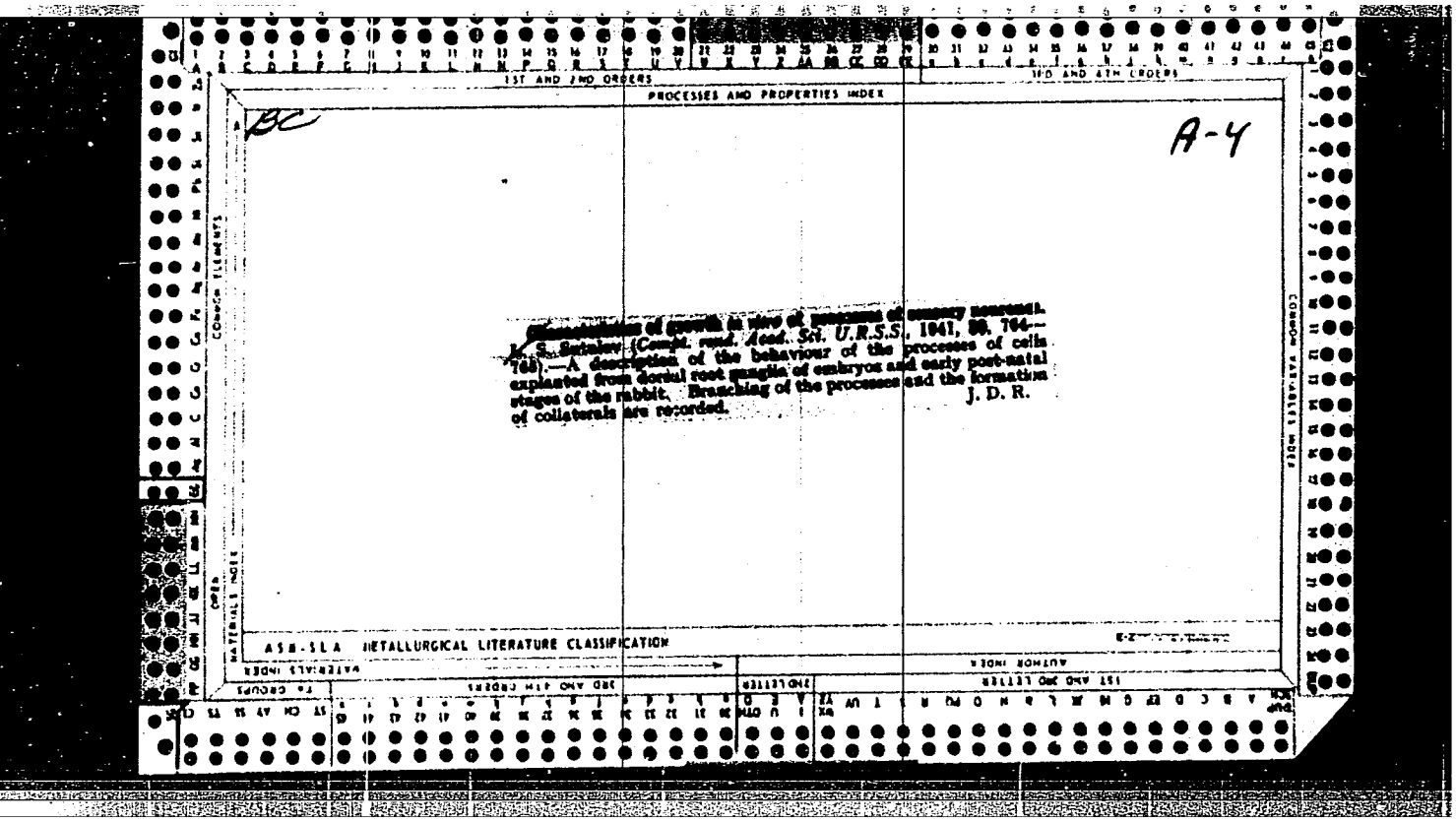
1ST AND 2ND GROUPS — PROCESSES AND PROPERTIES INDEX — 3RD AND 4TH GROUPS

BC A-4

Effect of quinine on growth of elements of surviving embryonic heart. L. S. Sutulov (*Compt. rend. Acad. Sci. U.R.S.S.*, 1941, 30, 406—409).—Quinine causes loosening of the membranes in the surviving hearts of chick embryos. Individual cells become segregated, vacuoles are produced, and the nuclei of the cells are displaced.
W. McC.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





[illegible] of growth in vitro of sympathetic neurones. K. S. Sytnikov (Compt. rend. Acad. Sci. U.R.S.S., 1941, 30, 764—768).—A description of the behaviour of the processes of cells explanted from dorsal root ganglia of embryos and early post-natal stages of the rabbit. Branching of the processes and the formation of collaterals are recorded.

J. D. R.

SUTULOV, L. S.

32715. Regeneratsiya poperechno-polosatay myshtsy limfatich yeskogo serdtsa posle povrezhdeniya, doklady akad. Nauk sssr, novaya seriya, T. LXVIII, No. 6, 1949, s. 1089-91.—bibliogr: 8 nazv

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

USSR/Medicine - Nervous System 1 Nov 49
Transplantation

"Reactive Variations in the Nervous and Neuroglial Elements of the Intervertebral Nodes During Transplantation," L. S. Sutulov, Stalinabad Med Inst, 3 pp

"Dok Ak Nauk SSSR" Vol LXIX, No 1

In transplanting spinal ganglia of vertebrates in sensitive nerve cells and their satellites, used a culture of pieces of organs in the anterior chamber of the eye of the same kind of animal from which material was taken. Transplanted pieces of intervertebral nodes in the tail of another axolotl. Reactive

156T65

USSR/Medicine - Nervous System (Contd) 1 Nov 49

variations in nerve cells passed through several stages and might either prove to be inverse or involve complete collapse of the cell. Submitted by Acad A. I. Abrikosov 30 Jul 49.

156T65

SUTULOV, L. S.

SUTULOV, L. S.

USSR/ Medicine - Wounds Skin, Regeneration 11 Nov 49

"Rate of Epithelization in Skin Wounds Under Conditions Occurring in the Lowlands and High Mountain Regions," L. G. Granov, O. T. Utkina, L. S. Sutulov, Stalinabad Med Inst, 2½ pp

"Dok Ak Nauk SSSR" Vol LXIX, No 2

Similar skin wounds open, without suture, and closed by suture, were made in 30 dogs at 3,560 meters above sea level (Ansob Pass, Tadzhikistan) and in the lowlands (Stalinabad). They were examined and slides made at various intervals of hours and days. Results of examinations, given in detail, show that regeneration of epithelium and whole healing process are retarded at high altitudes. Submitted by Acad A. I. Abrikosov 30 Jul 49

157T65

LEPESHINSKAYA, Ol'ga Borisovna [author]; SUTULOV, L.S., professor [reviewer].

"Origin of cells from living matter and role of living matter in the organism," O.B.Lepeshinskaia; "Non-cellular forms of life," O.B.Lepeshinskaia, ed; "Development of life processes in the pre-cellular period." Reviewed by L.S.Sutulov. Arkh.pat. 15 no.3:73-79 My-Je '53. (MLRA 6:11)
(Cells) (Life (Biology)) (Lepeshinskaia, Ol'ga Borisovna, 1871-)

SUTULOV, L.S.

Development of cellular and non-cellular forms of living matter of connective tissue. Priroda 42 no.8:94-97 Ag '53. (MLRA 6:7)

1. Ryazanskiy meditsinskiy institut imeni I.P.Pavlova.
(Connective tissues)

SUTULOV, L.S.
(Lev Severianovich)

"Material on the Study of Certain Basic Laws of the Development and Composition of Tissue Structure," (Dissertation), Academic degree of Doctor in Medical Sciences , based on his defense, 26 February 1954, in the Council of the Ryazan' Medical Inst im. Academician I.P. Pavlov,

[redacted] - [illegible], 2 Oct 54

SUTULOV, L.S. and G.L. SUTULOV

"Reactivity and Plasticity of Nervous Tissue in Experimental Conditions."

paper presented at the 7th Intl Congress of Anatomists, New York City, 11-16 Apr 1960.

SUTULOV, L.S.

Seventh International Congress of Anatomy. Arkh. anat. gist. i embr. 40 no. 1:118-124 Ja '61. (MIRA 14:2)
(ANATOMY—CONGRESSES)

SUTULOV, L.S.

Measures to further improve the teaching of cytology in medical institutes. Arkh. anat. gist. i embr. 48 no.4:117-123 Ap '65. (MIRA 18:6)

1. Kafedra gistologii i embriologii (zav. - prof. L.S. Sutulov) Ryazanskogo meditsinskogo instituta imeni akademika Pavlova.

SOV/20-121-4-45/54

AUTHOR: Sutulov, Yu. L.

TITLE: The Innervation of the Ependymal Membrane of Encephalon Ventricles in Man (Innervatsiya ependimal'noy obolochki zheludochkov golovnogo mozga cheloveka)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 4, pp. 738-741 (USSR)

ABSTRACT: The author gives a survey of publications dealing with the same subject (Refs 1-15). Since the ependyma covers the inner surface of the brain the problem of its innervation is of great importance; it has, however, up to now not been possible to find an answer to this question. Nerve fibers of the cerebral ependyma are described (Refs 13, 15-20) as well as nerve cells in the ependyma of the spinal cord (Refs 13, 16, 21, 22). The author investigated the ependyma of 26 persons who died from different diseases; he furthermore investigated 6 healthy persons, for comparison he used 7 dogs. The author describes some characteristic features of the structure of the ependyma at different places. In some cases the cells of the ependyma have lashes and basal appendages. At first glance the impression is gained that there are not many nerve elements in the ependyma.

Card 1/4

Only detailed investigations and the application of plane film preparations (ploskostnyye plenochnyye preparaty Pl.) convinced the author that this is not the case. It is true, however, that no nerve cells were found as they were described by other authors who had proved them in the ependyma of lower vertebrates and some mammals. Nerve fibers have not the same length and thickness; they are situated on different levels and do not on all places occur in equal amount. The author divides them into 3 groups: 1) Fibers with a large number of beadle-like swellings which enter the ependyma from the below situated cerebral tissue (Figs 1-4). 2) Immediately below the epithelium of the ependyma in the mass of the subepithelial layer thicker nerve fibers become visible (Fig 3). They may also have beadle-like swellings and can be traced very far. On some points they form bundles and grow into the ependyma from the soft cerebral meninges. 3) The bundles of nerve endings entering the ependyma from the lower situated cerebral tissue are rather thick; they take a certain way in the ependyma in order to leave it again. In contrast to group 2) they remain unramified. They occur in particularly large numbers in the roof ependyma of the central

The Innervation of the Ependymal Membrane of Encephalon Ventricles in Man

part of the side ventricle and on other points. It was already several times presumed that the ependyma takes part in reception (Refs 13, 15, 16, 18). For this purpose the observed nerves and endings of the groups 1) and 2) may be used. There is no relation between group 3) and the innervation of the ventricle ependyma; it probably implies only commissures and conducting ducts. It may be assumed that the mentioned endings take part in the registration of the amount and composition of the cerebro-spinal liquid as well as in the control of their formation and resorption. There are 4 figures and 22 references, 8 of which are Soviet.

ASSOCIATION: Ryazanskiy meditsinskiy institut im. I. P. Pavlova (Medical Institute imeni I. P. Pavlov, Ryazan')

PRESENTED: February 5, 1958, by K. M. Bykov, Member, Academy of Sciences, USSR

SUBMITTED: February 3, 1958

Card 3/4

AUTHOR: Sutulov, Yu. L. SOV/20-121-5-41/50

TITLE: Reactive Growth of Tissue Elements of the Ependymal Membrane (Reaktivnyye razrastaniya tkanevykh elementov ependimal'noy obolochki)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 5, pp. 916-919 (USSR)

ABSTRACT: The inner surface of the human brain is more or less smooth and even with young healthy persons and covered all along by epithelial cells (Refs 1-4). With progressing age uneveness, protuberances, and deepenings appear on the ependymal membrane, which covers the cerebral ventricles. The ependyma becomes differently thick on various points. The said protuberances have been studied on many occasions (Refs 4-10). With human beings they appear at an age of about 40 to 50 years. Also other changes of the ependyma occur. The present paper is to describe the growth mentioned in the title at a normal and a pathological state. The material was taken from dead bodies of 6 practically healthy persons and from 14 bodies of persons, who suffered from a chronic moderate inner cerebral dropsy. The protuberances with healthy persons are growth of the macro-

Card 1/2

ganglionic tissue (Fig 1). The structure of the ependyma at dropsy depends on the duration of the pathological process. A number of data indicate, that peculiar compensating regenerative processes occur on the inner ventricular cerebral surface together with the formation of organo-specific structures (Ref 14). Considerable changes in the nerve apparatus during the inner cerebral dropsy demonstrate the altered reception under condition of an increased pressure within the ventricles, and prove once more the role of the ependyma as an organ which participates in the registration and regulation of the amount and of the composition of the cerebro-spinal liquid. There are 4 figures and 14 references, 8 of which are Soviet.

ASSOCIATION: Ryazanskiy meditsinskiy institut im. I. P. Pavlova (Institute of Medicine imeni I. P. Pavlov, Ryazan')

PRESENTED: February 5, 1958, by K. M. Bykov, Member, Academy of Sciences, USSR

SUBMITTED: January 29, 1958

SVITOV, Yu. L., Cand Med Sci — (diss) "Changes in the ependymal membrane and its nervous apparatus in acute cerebral edema and hydrocephalus. On the problem of the ependymal membrane as a zone of intracerebral reception." Ryazan', 1959. 26 pp (Ryazan' Med Inst im Acad I.P. Pavlov. Chair of Pathological Anatomy). 200 copies (KL 40-59, 106)

57

BELETSKIY, V.K.; USHKALOV, A.F., retsenzent; SUTULOV, Yu.L., red.

[Laboratory manual on pathological anatomy] Praktikum po patologicheskoi anatomii; metodicheskoe uchebnoe posobie dlia studentov (v 2 chastiak). Riazan', Riazanskii med. in-t im. I.P.Pavlova. Pt.2.[Pathological anatomy of diseases (nosological forms)] Patologicheskaia anatomiia boleznei (nozologicheskikh form). 1962. 173 p. (MIRA 17:1)

18.1220

28948
S/136/61/000/010/002/003
E193/E435

AUTHORS: Butomo, D.G., Zedin, N.I. and Suturin, G.I.

TITLE: Development of a method of production of thin chromium bronze (alloy БрХ (BrKh)) sheet with a finely-crystalline structure

PERIODICAL: Tsvetnyye metally, no.10, 1961, 69-76

TEXT: Up till the middle of 1960, heat treated chromium bronze sheet was produced by a method entailing a solution treatment at 980 to 1000°C, work-hardening by cold-rolling and ageing at 450°C. Some batches of material produced in this manner were found to have a coarsely-granular structure which caused frequent intercrystalline cracking during the subsequent forming operations. Hence the present investigation whose object was to determine the effect of various factors on the grain-size of chromium bronze sheet, treated to possess hardness not lower than 120 kg/mm^2. Three grades of chromium bronze, containing 0.54, 0.66 and 0.79% Cr, were used in the experiments which consisted in measuring hardness (at room temperature and at 600°C), grain-size, electrical conductivity and oxidation resistance of specimens quenched from 800, 850, 900, 950 and 1000°C, deformed by cold-rolling to 40, 50,

Card 1/4

Development of a method ...

60 and 70% reduction in thickness, and aged at 300, 400, 450 and 500°C. The results obtained can be summarized as follows:
1) The grain-size of thermally and mechanically treated chromium bronze depends on its chromium content. Grain growth in alloys containing 0.5 and 0.65% Cr, begins at 850 and 900°C respectively, whereas an alloy with 0.8% Cr retains its finely crystalline structure even at 950°C.
2) The quantity of chromium retained in solid solution was approximately 0.2% irrespective of whether the solution treatment was carried out at 1000, 950 or 900°C.
3) For practical purposes, a separate solution treatment can be replaced by rapid cooling after hot-rolling without a significant decrease in the quantity of chromium retained in solid solution. This method was used in a large scale trial in which 3 tons of 4 to 5 mm thick sheet was produced. The last hot-rolling operation was finished at 850 to 880°C after which the alloy was quenched from this temperature, 0.2 to 0.24% Cr being retained in solid solution. After cold-rolling (67 to 73% reduction in thickness) and ageing, the metal had the following properties:
Card 2/4

Development of a method ...

UTS - 45 to 49 kg/mm^2; Brinell hardness - 120 to 148 kg/mm^2; elongation - 14 to 17%; electrical conductivity - 65 to 71% of the electrical conductivity of copper.
4) Maximum hardness is attained by quenching from 1000°C and ageing at a temperature (400 to 450°C) depending on the preliminary cold deformation and duration of ageing.
5) The higher the degree of deformation after the solution treatment, the higher is the hardness after ageing; at the same time, a high degree of deformation brings about a decrease in the recrystallization (softening) temperature.
6) UTS of chromium bronze at high (600°C) temperatures is independent of the chromium content but decreases with decreasing temperature of the solution treatment. The optimum strength (UTS $\geq$ 20 kg/mm^2) at 600°C is attained after a solution treatment at 1000°C followed by cold-rolling to 70% reduction and ageing at 400°C.
7) Electrical conductivity of chromium bronze is independent of its chromium content and varies (in the aged condition) between 75 and 80% of the electrical conductivity of copper. In the case of the

Card 3/4

Development of a method ...

solution treated material, electrical conductivity decreases with increasing temperature of the solution treatment, being approximately 34 and 47% after quenching from 1000 and 900°C respectively.
8) The thickness of the surface layer in which chromium becomes oxidized at elevated temperatures depends on time at the given temperature. The thickness of the oxidized layer in an 8 mm thick strip held at 1000°C was 0.18, 0.26 and 0.59 mm after 15 min, 1 hour and 4 hours at the temperature, respectively. There are 3 figures, 4 tables and 2 Soviet references.

Card 4/4

EWP(k)/EWP(z)/EWP(b)/

ACCESSION NR:

Suturin, G. I.

B

SOURCE: Fizika metallov i metallovedeniye,

TOPIC TAGS: cold working, hardness, electric conductivity, metal aging, not up-
metallographic analysis, x ray analysis, yield stress, elongation

after annealing at various temperatures,

Card 1/2

Card

136-8-5/21

AUTHORS: Sergeyev, L.N., Candidate of Technical Sciences and Suturin, G.L., Engineer

TITLE: Development of the Technology of the Production of Sheets of MH5 Alloy for Shipbuilding (Razrabotka tekhnologii proizvodstva listov iz splava MH5 dlya sudostroyeniya)

PERIODICAL: Tsvetnye Metally, 1957, Nr 8, pp.26-30 (USSR)

ABSTRACT: For making large diameter tubes of corrosion-resistant MH5 alloy (5-6.5% Ni, 1.0-1.4% Fe, 0.3-0.8% Mn, remainder Cu) suitable for sea-water, it was decided at the "Krasnyy Vyborzhets" works to adopt welding of bent sheets. The authors describe the experimental production of sheets of the alloy (with the assistance of engineer A.V.Mitrushin) by rolling cast ingots starting at 920-950°C and finishing at 500°C. They illustrate the microstructures of specimens quenched from different temperatures (Figs.1,2), the appearance of bend-test specimens and the structure of a hot-rolled specimen. The influence of lead on the hot-bend tests is considered and results tabulated (Table 1). The mechanical and magnetic properties are tabulated (Table 2) as are results of toughness tests at various temperatures on hardened and annealed specimens (Table 3). The conclusions are that a satisfactory technology has been developed for producing the sheets by double hot rolling; that the alloy

Card 1/2

SUTURIN, G.N.

SERGEYEV, L.N., kandidat tekhnicheskikh nauk; SUTURIN, G.N., inzhener.

Developing the technology of producing MN5 alloy sheets for use in shipbuilding. TSvet.met. 30 no.8:26-30 Ag '57. (MIRA 10:10)

1. Zavod "Krasnyy Vyborzhets."
(Copper-nickel-iron alloys--Metallography) (Rolling (Metalwork))

1. SUTURIN, M.
2. USSR (600)
4. Discription adn Travel - Kwangsi, China (Province)
7. Kwangsi is the Chinese tropics. Vokrug.sveta, no. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

AUTHOR: Suturin, S.N., Engineer SOV/136-58-12-16/22

TITLE: Use of Reducing Roasting for Increasing Tellurium Extraction (Primeneniye vosstanovitel'nogo obzhiga dlya povysheniya izvlecheniya tellura)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 12, pp 78 - 79 (USSR)

ABSTRACT: At one Soviet works, tellurium is extracted from a copper sponge (19.35-25.02% Cu, 2.20-3.14% Te, 3.4-5.45%Se, 5.87-10.94% Pb and up to 1% total platinoids) and heavy metal hydroxides. In the ordinary procedure for tellurium extraction the roasting of the sponge with sodium carbonate is accompanied by oxidation of tellurium and selenium and the tellurium is not leached-out by water. The tellurium which remains in the form Na_2TeO_4, TsO_3 and, possibly, $2CuOTeO_2$ is dissolved by treating the cake with 10% sulphuric acid. This also dissolves much copper which leads to the production of a copper-rich concentrate whose treatment is wasteful. In January-April, 1958, laboratory and larger-scale experiments with 50-g and 10-kg copper-sponge charges, respectively, were carried out in which the cake, after removal of selenium, is roasted with sulphur

Card 1/2

Use of Reducing Roasting for Increasing Tellurium Extraction

to reduce the tellurium to the tetravalent state, the TeO_2 then being leached out with caustic soda solution (Table 2). The Na_2TeO_3-containing solution formed is acidified and the tellurium precipitated with sulphur dioxide. Further work showed that the extraction of tellurium into solution is directly proportional to the content of the element as Na_2TeO_4; satisfactory recovery is possible from material containing not more than 1% Te; substantial reduction in the quantity of sulphur used for roasting and acceleration of the process can be achieved; tellurium quality can be improved by careful removal of water-soluble selenium compounds. The method is now undergoing full-scale tests. As the recovery of tellurium from the hydroxides raw material is efficient, the work was concentrated on the copper sponge. There are 2 tables.

POKROVSKIY, V.V.; SUTURIN, S.N.; SAMODELOV, A.F.

Trends and prospects for developments in the tin refining process.
TSvet. met. 38 no.2:41-43 F '65. (MIRA 18:3)

POKROVSKIY, V.V.; SAMODELOV, A.P.; SUTURIN, S.N.

Trends and prospects for developments in the tin smelting process. TSvet. met. 38 no.9:41-42 S '65. (MIRA 18:12)

SUTURINA, N.G.; TALYPOV, G.B.

Successive yield surfaces in steel. Vest. LGU 20 no.19:126-131 '65.
(MIRA 18:10)

SUTY, Ladislav, inz.

Use of the ultraviolet absorption spectrophotometry in the pulp industry. Papir a celulosa 17 no.11:239-241 N '62.

1. Katedra chemickej technologie dreva a chemickych vlaken, Slovenska vysoka skola technicka, Bratislava.

MAHDALIK, Miroslav, inz., CSc.; SUTY, Ladislav, inz.

"Wood extractives and their significance to the pulp and paper industries" by W.E.Hillis. Reviewed by Miroslav Mahdalik, Ladislav Suty. Papir a celuloza 18 no.11:233-234 N'63.

ŠUTY, Ladislav, inz.; MAJDALIK, Miroslav, inz., CSc.; BENYE, Frantisek, inz.

Ultraviolet spectrophotometric determination of linoleic and linolenic acids in poplar extracts. Papir a celulosa 18 no.12 237-238 D '63.

1. Katedra chemickej technologie dreva a chemickych vlaken, Slovenska vysoka skola technicka a Chemicky ustav Slovenskej akademie vied, Bratislava.

CERVINKA, Oliver, inz.; KASTIEL, Kazimir, inz.; SUTY, Ladislav, inz.

Use of ultraviolet absorption spectrophotometry in the cellulose industry. Pt.3. Papir a celuloza 19 no.2:36-38 F'64.

1. Vychodoslovenske celulozky a papierne, Hencovce (for Cervinka, and Kastiel). 2. Katedra chemickej technologie dreva a chemickych vlaken, Slovenska vysoka technicka, Bratislava.